The spider's web

Model organisms

The explosion of genomic information and the need to search for gene homologies make it more important than ever that genetic and biochemical data from model organisms should be organized in an accessible way — which is where online databases come into their own. In previous issues, *The spider* dealt with online resources for yeast and *Caenorhabditis elegans* (see *Curr Biol* 1998, **8**:R670), *Escherichia coli* and *Drosophila* (see *Curr Biol* 1998, **8**:R702); this time it's *Arabidopsis thaliana* and the mouse.

Arabidopsis thaliana

Pretty much the best online source of *Arabidopsis* information is the well-designed Stanford Genomic Resources *Arabidopsis thaliana* Database. There are links to the *Arabidopsis* Genome Initiative (AGI) along with summaries of the latest sequencing progress, extensive mapping resources and sequence analysis tools. The recently introduced *Arabidopsis* Gene Hunter search function allows you to look for information about the gene of your choice in a range of places from sequence databases to the archives of the journal *Plant Physiology*. The site also contains links to news and newsgroups, as well as protocols (the original 'Compleat Guide' has been superseded by print publication of protocols but still contains useful information). There are also links to the US and European stock centres, which, thanks to the open nature of the *Arabidopsis* research community contain all the latest mutants, mapping and expression lines.

The Arabinet collection of links will connect you with genomics, informatics, genetics and mapping resources. It is a simply presented site and contains some extra links that the *Arabidopsis thaliana* Database doesn't have.

Lehle Seeds, the main commercial supplier of "everything *Arabidopsis*" maintains a useful website with an emphasis on the research community. There are links to the Lehle catalog, newsgroups, community resources (including the Stanford Database) and teaching resources for both university and high school audiences.

Mouse

The outstanding Mouse Genome Informatics (MGI) site at the Jackson Laboratory provides a wide range of information. The Mouse Genome Database at the site consolidates information from many research groups on mouse genes and phenotypes, mammalian homologies, mapping data and molecular probes. The first module of the Gene Expression Database has just become available. The Jackson Lab site also provides searchable databases of mouse strains and mutants.

For genomic information, the Genetic and Physical Maps of the Mouse Genome site, created at the Whitehead Institute/MIT Center for Genome Research, provides a database that is searchable by genetic marker or YAC. Alternatively, users can download genomic data directly.

An ambitious project to create an atlas of mouse development is under way at the MRC Human Genetics Unit in Edinburgh, UK. The atlas will be integrated with gene expression data. Unfortunately, only sample pages from the atlas and anatomical sketches from the Standard Anatomical Nomenclature Database are so far available at the Mouse Atlas and Gene Expression Database site.

If you need to find out whether your particular gene of interest has been expressed in the mouse, there are a few online databases to try. TBASE: The Transgenic/Targeted Mutation Database at the Johns Hopkins University School of Medicine organizes information on transgenic mice and targeted mutations and includes a citation database, a glossary and a nice collection of links. The search interface is easy to use and the resource encourages researchers to submit published and unpublished data. BioMedNet's extensive Mouse Knockout and Mutation Database was originally created from data published in *Current Biology*. The searchable and browsable database has been revised and updated. Additional material includes gene insertion mutations and other mutations of known molecular nature. Access is by subscription only.

For a comprehensive listing of links to mouse researchers' home pages, try The Mouse and Rat Research Home Page maintained by Eric Mercer at CalTech. The site is well organized and up-to-date and includes links to genome resources, suppliers, technical information and conference announcements. Incredibly, at one point it was among the top 5% of pages visited on the web, which must mean that you don't have to be a mouse researcher to find something of interest there.

This month's URLs

Arabidopsis thaliana Database	http://genome-www.stanford.edu/Arabidopsis/
Arabinet	http://weeds.mgh.harvard.edu/atlinks.html
Lehle Seeds	http://www.arabidopsis.com/
Mouse Genome Informatics	http://www.informatics.jax.org/
Genetic and Physical Maps of the Mouse Genome	http://www.genome.wi.mit.edu/cgi-bin/mouse/index
Mouse Atlas and Gene Expression Database	http://genex.hgu.mrc.ac.uk/
TBASE	http://www.bis.med.jhmi.edu/Dan/tbase/tbase.html
Mouse Knockout and Mutation Database	http://BioMedNet.com/db/mkmd
The Mouse and Rat Research Home Page	http://www.cco.caltech.edu/~mercer/htmls/rodent_page.html

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